

Serial No.: 08/545,707
Amendment dated: May 10, 2005
Reply to Office Action of: November 10, 2004
Atty. Docket No.: 93A007

REMARKS

Applicants' attorney thanks the Examiner for the courtesy extended during the interview of 27 January 2005. In conformity with M.P.E.P § 713.04, the discussion below contains a summary of the substance of the interview.

Applicants' attorney and the Examiner discussed the applicability of the 102-b rejection over the "Journal of Membrane Science" article (hereinafter the "Jia" reference) in view of its acceptance date of 6 April 1992. While the Examiner stated that she would consider evidence that a later date should be accorded, she pointed out that the Jia reference contains a statement that the subject matter had been presented at an earlier conference. See the footnote on page 119 of the Jia reference.

In addition to the Jia reference, proposed formal amendments to claims 16 and 17 were discussed. Amended claims 16 and 17 congruent with that discussion are included with this response.

Turning now to the office letter of November 10, 2004, the Examiner has made final the outstanding restriction requirement. In response, applicants acknowledge their election of the Group I claims, and cancel claims 2 through 11 and 21 through 26. In addition, applications cancel claim 12. Claims 1, 2, and 13 through 20 are pending. New claims 27, 28, and 29 have been added.

In response to the formal rejections of claims 16 and 17 under 35 U.S.C. §112, first paragraph, applicants have amended those claims as the Examiner suggested. Accordingly, applicants respectfully request that the Examiner withdraw the rejection.

The Examiner rejected claims 1, 2, 13, 15, 19, and 20 under 35 U.S.C. §102(b) as anticipated by the Jia reference. Applicants respectfully traverse the rejection. In instant claim 1, applicants provide a "supported inorganic layer" comprising "contiguous" molecular sieve particles. The Jia reference does not disclose these features of applicant's claim 1. First, Jia's membrane layer is not inorganic. As described in their abstract and

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on pages 122-124, Jia's membrane is a polymeric composite containing organic species (polydimethylsiloxane). Moreover, the Jia reference does not disclose that the zeolite particles in its polymer composite are contiguous, as in applicants' claim 1. It is well settled that for a reference to anticipate, it must disclose each and every element of the claimed invention. Since the Jia reference discloses neither the "inorganic layer" nor the "contiguous" molecular sieve particles of applicants' claim 1, the Jia reference does not anticipate claim 1. Accordingly, claim 1 is patentable over Jia, and the rejection under 35 U.S.C. § 102(b) over Jia should be withdrawn. Since dependent claims are patentable when they depend from a patentable independent claim, the rejection of claims 2, 13, 15, 19, and 20 should also be withdrawn.

Next, the Examiner rejected claims 1, 2, 12, 13, 19 and 20 under 35 U.S.C. § 102(e) as anticipated by U. S. Patent no. 5,266, 542 ("Hashimoto"). In response, applicants have amended claim 1 so that the inorganic layer's support is selected from "the group consisting of glass, fused quartz, silica, silicon, clay, metal, porous glass, sintered porous metal, titania, and cordierite".

Support for the amendment can be found on pages 8 and 9 of the specification, for example. The Hashimoto reference discloses that its support must be "more than 90 wt% alumina", i.e., a material that is not among the support materials listed in applicants' amended claim 1. Since the Hashimoto patent does not identically disclose the supports of applicants' amended claim 1, it does not anticipate claim 1, and the rejection under 35 U.S.C § 102(e) should be withdrawn. Since they depend from a patentable independent claim, the rejection of claims 2, 13, 19, and 20 should also be withdrawn.

Finally, the Examiner rejected claims 14 and 15 under 35 U.S.C § 103(a) as unpatentable over Hashimoto. In applicants' view, the amendment of claim 1 overcomes this rejection. In column 2, line 47 through 55, Hashimoto discloses that substrates "constituted of less than 90 wt% alumina" cannot be used. Consequently, it would not have been obvious to one skilled in the art at the time of applicants' invention to optimize

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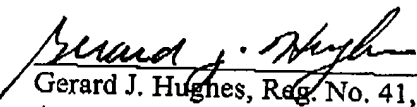
their process to obtain the claimed range because Hashimoto teaches away from the claimed combination of an inorganic layer and a support that does not contain alumina. Applicants therefore respectfully request that the Examiner withdraw the rejection.

The Examiner in her office letter stated that claims 16 and 17 would be allowable if they were amended to overcome her formal rejections and to include the limitations of claim 1. Applicants have amended the claims in accordance with the Examiner's suggestion and provide them herewith as new independent claims 27 and 28. In order to overcome the objection to allowable claim 18, applicants have re-written the claim as new claim 29. Applicants respectfully request entry of the new claims.

In view of the foregoing comments and amendments, applicants respectfully request that the Examiner withdraw the rejections of claims 1,2, and 13 through 20, enter new claims 27, 28, and 29, remove the objections to claims 16, 17, and 18, and then pass the case to issue.

Respectfully submitted:

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